

presence. The total absence of male sacs, and the rarity of ova in the females, may, Mr. Huxley thinks, be accounted for by the season during which his investigations were carried on, the months of March, April, May and June being the winter of the Southern Hemisphere. Lastly, the author enters on the comparative anatomy of various species of *Physophoridae*, by means of which he believes it to be satisfactorily demonstrated that there exists a unity of organization between the two families of *Diphyidae* and *Physophoridae*; and concludes by stating his opinion that *at least* two other families, the Hydriform and Sertularian Polypes, should be arranged with them in one natural group. The structural coincidences in these families he enumerates as follows: 1. body composed of two membranes, out of which the organs are modeled; 2. thread-cells universally (?) present; 3. gemmiparous generation; 4. sexual generation, spermatozoa and ova being formed in vase-like external sacs.

The paper was accompanied with a series of illustrative drawings.

March 5.—William Yarrell, Esq., V.P., in the Chair.

Dr. Wallich, V.P.L.S., read the following extract of a letter from Prof. Lehmann, dated Hamburgh, 14th December, 1849:—"I write to inform you that a work has just appeared, namely Proceedings of the Fifth Meeting of Scandinavian Naturalists held at Copenhagen 1847. Copenhagen, 1849. 8vo. There is in it a very remarkable paper by Liebmann, entitled 'A few words concerning the Impregnation of *Cycadææ*,' p. 501 *seq.* It appears, according to this paper, that in that family ripe and vegetative fruits may be produced, without the process of impregnation. A female plant in the Botanic Garden at Copenhagen (males do not exist in Europe) produced seeds which have germinated! Liebmann made the same observation in Mexico."

Read also a paper entitled, "Further observations on the habits of *Monodontomerus*, with some account of a new *Acarus*, *Heteropus ventricosus*, a parasite in the nests of *Anthophora retusa*." By George Newport, Esq., F.R.S., F.L.S. &c. &c.

Mr. Newport remarked that as some of the details of a paper on "certain *Chalcididae* and *Ichneumonidae*" read to the Linnean Society in March 1849 had drawn forth at that time the dissent of some entomologists, he had repeated his observations during the past summer, and on one occasion had obtained as many as *two hundred and forty-seven* larvæ of *Monodontomeri* from the nests of *Anthophora*. In every instance these parasites had fed on the bee larva *from without*, and had drained it of its contents in the same way that the larva of *Paniscus* drains that of the body of a caterpillar, thus proving the correctness of his original statement, that the *Monodontomeri* are *external* and not *internal* feeding parasites. He had originally been led to this view, *not*, as erroneously stated by Mr. Westwood in the printed Proceedings of the Linnean Society for May 1849, p. 37 (Annals and Mag. Nat. History, Oct. 1849, p. 288), from the simple fact that the author had found the bodies of these parasites covered with an armature of hairs, but as he had explicitly stated in his former paper, from the circumstance that he had never found hairs

on the bodies of *internal* feeding parasites. Mr. Newport also found, as he formerly mentioned, some remains of the destroyed bee larva in each cell, but no "yellow dust or granules," as stated by another observer. Thus his more recent observations have confirmed those which he formerly communicated to the Society on the *Monodontomeri*.

Having however collected a quantity of these larvæ for further observation, he was surprised to find at the end of a few days that their bodies were covered with multitudes of what at first appeared like microscopic drops of fluid, which each day increased in size, until at length he found, on careful examination, that those supposed drops were the bodies of multitudes of gravid parasites, which infested and ultimately destroyed the larvæ of *Monodontomerus*, as these had done that of the bee. The œconomy of this microscopic parasite was then traced to some extent, and the fact of their having attained a mature state proved in the circumstance that at the end of about three weeks many of them produced multitudes of extremely minute young, which differed from their parents only in the smaller size, and in having no enlargement of the abdominal portion of the body. These young were smaller even than the young of *Stylops*, as each measured only *sixteen thousandths* of an inch in length. The author stated other facts connected with the œconomy of this singular parasite, and mentioned that he is still engaged in its investigation. The following are the characters and description of this new *Acarus*.

Class ACARI.

Family SARCOPTIDES, Koch.

Genus *Heteropus*, Newp.

Corpus elongatum, subarticulatum. *Caput* mobile. *Thorax* a trunco distinctus, ad latera corpusculis clavatis munitus. *Pedes anteriores* palpiformes; *reliqui* (parium triun posteriorum) æquales, arcuati, attenuati, tarsis gracilibus 4-articulatis, articulo terminali lato vesiculari.

H. VENTRICOSUS, pallidè ferrugineus, capite saturatiore, prothorace paribus 2 pilorum longorum, pedibus subrobustis; articulis omnibus longè pilosis: tibiæ articulo apicali corporis dimidium æquante.—Long. $\frac{1}{8}$ — $\frac{1}{6}$ lin. ♀ gravidæ abdomine magnoperè inflato vesiculari.

Hab. In postibus intra nidos *Anthophoræ retusæ*, apud Gravesend, in Comitatu Kent.

MISCELLANEOUS.

NOTES ON THE SYNGNATHI.

To the Editors of the Annals of Natural History.

GENTLEMEN,

The Willows, Swansea, Oct. 5, 1850.

I WISH to record in your valuable periodical the following notes, which may assist towards determining the time at which the transfer of the ova from the female to the male in *Syngnathus acus* and *S. lumbriciformis* takes place; their vivification, &c.

May 14, Langland Bay. *Syngnathus lumbriciformis* with pouch on the anterior portion of the belly, empty.

June 10, Langland Bay. *S. lumbriciformis*, pouch full of roe.